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To explore the effects of listening instruction on first graders' achievement and, specifically, to assess improvement in listening comprehension and determine the effect of listening instruction on achievement in reading comprehension are the purposes of this study. Six first grade classes were randomly assigned to three groups. A program of listening instruction was developed, and systematic lessons were taught to the experimental group. One of the control groups followed the usual language program, while the other had special lessons in oral language. Controls did not receive direct listening instruction. Achievement in listening, vocabulary, and reading were measured at the beginning and end of the study. Any generalizations based on the findings can be applicable only to like subjects and teachers and to similar conditions. It was concluded that (1) listening comprehension of the experimental group was significantly improved; (2) instruction used in basal reading programs improved listening comprehension when adapted for use with aurally presented material; and (3) listening instruction had a strong positive effect on reading achievement, although it did not produce highly significant improvement in reading comprehension. Implications of the findings and suggestions for further research are delineated. (DO)

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DISSERTATION ABSTRACT

I TITLE: The Effect of Direct Instruction in Listening on the Listening and Reading Comprehension of First Grade Children

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Reading

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IV PURPOSE OF THE STUDY: The purpose of the study was to explore the effects of listening instruction on pupils' achievement at the first grade level. Specifically, the purposes were: 1) to assess the extent to which the listening comprehension of first grade children was improved through participating in a program of direct instruction in certain listening skills, and 2) to assess the extent to which such instruction in listening affected achievement in reading comprehension.

To accomplish these purposes, the listening and reading achievement of three groups of first grade pupils were compared. Children in the experimental group received systematic instruction in listening skills during their first grade year. Children in the two control groups received no listening instruction. However, to obtain a measure of the extent to which the Hawthorne effect influenced the test results, one of the control groups was treated as an experimental group and given a special program in oral language. The second control group followed the regular language program and was given no special consideration.

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In achieving the purposes of the study, the following null hypotheses were tested:

1) that listening comprehension of first grade children would not be significantly improved by direct instruction in listening skills,
2) that reading comprehension of first grade children would not be affected by direct instruction in certain listening skills.

V SIGNIFICANCE OF THE STUDY

By considering direct instruction in listening at the first grade level, the study aims to investigate an area of language instruction where there is presently a dearth of research.

The study makes three principal contributions to knowledge in curriculum development: 1) it provides evidence of the amenability of listening to instruction at a time when there is considerable speculation about the place of listening in school curricula, 2) it provides practical guidance in setting up a listening program, and 3) it provides information about the effects of instruction in listening on attainment in reading comprehension which is vital to planning an integrated language program.

While little is known about the amenability of listening to instruction, there is ample evidence that it has a high utilitarian value. It has been pointed out that the average elementary school pupil listens during more than 50 per cent of his school day, and that as an adult he will spend over 40 per cent of his communication time listening. As a result, many authorities in the field of language arts have advocated listening instruction in the schools. While first grade might appear to be the logical place to institute a listening program, the effectiveness of instruction at this level has not been determined. The findings of this study provide initial objective evidence to guide curriculum planners.

If it is deemed advisable to initiate formal instruction in listening at the first grade level, immediate practical problems will be the selection of content for, and organization of, instructional programs. The dearth of specific plans for developing listening skill has been noted in the literature. As a part of this study, a detailed plan of instruction in certain listening skills was developed. This plan could serve as a model for educators developing a first grade program.

Since listening and reading are both receptive language skills, it would seem logical that improvement in one area would be reflected in improvement in the other. If such a transfer of learning actually does occur, it seems imperative that curriculum planners be aware of the extent of the transfer and capitalize on it in program construction. This study attempted to determine whether or not such transfer took place when listening was taught in first grade.

VI BACKGROUND OF THE STUDY

The Commission on the English Curriculum of the National Council of Teachers of English has pointed out the responsibility of teachers of English to instruct their students in four interrelated communication skills: listening, speaking, reading, and writing. It has also reported that, while reading, writing, and speaking are taught in American schools, listening has been neglected at all levels in spite of substantial evidence supporting Rankin's 1928 report that about 42 per cent of the communication time of the average adult is spent in listening. The assumption apparently has been, that children who have developed some degree of listening skill before school entrance, have mastered it, or that mastery will come with maturity.

The assumption that a high level of listening ability will develop without instruction has been questioned by some authorities. It has been found that listening comprehension

typically surpasses reading comprehension until the sixth or seventh grade, after which time reading becomes superior to listening. It has been suggested that this may be due to the fact that instruction is consistently given in reading comprehension skills, while listening comprehension is left to develop haphazardly.

Wepman's research has also raised questions about the validity of the aforementioned assumption. While inaccurate or incomplete sound reception resulting from defective auditory acuity may well interfere with listening comprehension, a high level of auditory acuity does not insure listening comprehension. The ability to interpret sounds heard was found to be learned and to be related to intellectual factors.

There is a substantial body of authoritative opinion supporting the establishment of instructional programs in listening. However, the hypothesis that listening comprehension can be improved by direct instruction has not been consistently supported by research. Larter and Scott found that no significant gains resulted from direct instruction at the first grade level. With the exception of their study, research has been largely confined to fourth grade and above, with the concentration at the college level. The findings of the studies at higher levels have been inconclusive.

Nor has research defined the relationship between listening and reading comprehension. Various studies have reported coefficients of correlation ranging from .40 to .80 between listening and reading achievement. However, many writers are of the opinion that the same mental processes are employed in the interpretation of oral and written language and emphasize the similarity between listening and reading. Some investigators have sought to determine whether improvement in one resulted in concomitant improvement in the other. In some studies it was found that improved listening comprehension resulted in improved reading comprehension; in others no significant transfer was noted. No study has been located that poses this problem for first grade children and beginning reading instruction.

This study was concerned with the effects of listening instruction at the first grade level on attainment in both reading and listening.

VII PROCEDURES OF THE INVESTIGATION

Four steps were planned to achieve the aims of the study: 1) a survey of relevant literature; 2) the formulation of the hypotheses and procedures for testing them; 3) the conducting of the experimental program; 4) the analysis and interpretation of the data.

1. The first essential step was a survey of experimental literature and authoritative opinion. This review of the literature provided a conceptual framework for the study. It also revealed a dearth of investigations at the primary grade level.

2. The second step was the formulation of the hypotheses and procedures for testing them. Planning the procedure had two major aspects. The first was the development of an instructional program in listening to be used with the experimental group. It was decided to limit instruction to eight comprehension skills and lessons were planned accordingly. The skills selected for instruction were:

Listening to find the answer to a specific question

Listening for details

Listening for the main idea

Listening for and recalling a sequence of ideas

Listening to precise directions

Listening to make inferences

Listening and forming sensory images

Using context and speech patterns as clues to meaning

The planned instructional program called for two relatively short lessons per week. A detailed plan for each lesson was supplied to the teacher. The second aspect was the planning of procedures to assess the effectiveness of the experimental program in producing change in the listening and reading achievement of first grade pupils.

3. The third step was to carry out the planned procedure for assessing the effects of listening instruction on listening and reading achievement.

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The subjects of the study were all the first grade pupils in the public elementary schools of one small school system who met the following requirements:

1. had attended kindergarten,
2. were not repeating first grade,
3. remained in the same classroom for the duration of the study,
4. were taught in "single grade" classes,
5. were taught by experienced teachers who were rated highly by their supervisors.

The six first grade classes were randomly assigned to three groups. That the groups were comparable was ascertained at the beginning of the study by means of the t-test applied to differences between the mean scores on the *Kuhlman-Anderson Test of Mental Maturity* and the *Metropolitan Reading Readiness Test,* and to differences between the mean ratings of parents' occupations on Blichen's *Occupational Class Scale.*

To determine the comparability of teacher effectiveness, achievement tests in reading and listening comprehension were administered to the pupils of all participating teachers at the end of the school year preceding the study. The teachers were grouped as they would be for the study, and the mean achievement of the pupils taught by each of the three groups of teachers was computed for each test. By means of the t-test applied to the differences between the mean scores, comparability of the groups was determined. No significant differences were found. Evidence was thus provided of the equivalence of teacher effectiveness in the three groups.

A program of instruction in listening was developed and systematic lessons were taught to the experimental group during the first grade year. During the same period, one of the control groups followed the usual language program while the other was provided with special lessons in oral language to determine the Hawthorne effect. Neither control group received direct instruction in listening.

Achievement in listening was measured at the beginning of the school year and again at the end, using the following measures:

The Constructed Listening Test;
Listening Comprehension Test for First Grade;
Listening Comprehension Scale, Van Waganen Reading Scales.

The *Constructed Listening Test* was developed by Sister M. Eulogius, C.S.J. at the Cardinal Cushing Educational Clinic and was designed to measure listening comprehension at the first grade level. *The Listening Comprehension Test for First Grade* was constructed by Austin and Stemmler at the University of Chicago. Both tests had been found to discriminate significantly between good and poor listeners. *The Listening Comprehension Scale* of the Van Waganen Reading Scales was designed for use at the end of Kindergarten and first grade years to measure listening vocabulary.

The score on each of the three tests was obtained by totalling the number of correct responses. A composite listening score was calculated for each pupil by totalling his scores on the three tests. The change in listening test scores of the pupils who had received the instructional program was compared to that of pupils in two control groups where no instruction in listening was offered. Moreover, to obtain a measure of the extent to which the Hawthorne effect influenced the test results, one of the control groups was treated as an experimental group and given a special program in oral language. The second control group followed the regular language program and received no special consideration. If the Hawthorne effect was a significant factor in the study, it was expected that the analysis of the data would reveal a difference in achievement between the two control groups as well as between the experimental and the second control group.

The three groups followed the same reading program. Reading achievement was measured at the end of the school year using the following measures:

Dominion Achievement Test in Silent Reading, Types II and III;
Metropolitan Achievement Tests: Reading, Test 3.

Each test yielded grade scores. A composite score was obtained for each pupil by finding the mean of his three test scores.

4. The final step was to analyze and interpret the data obtained from the testing program. By means of analysis of covariance, change in the listening and reading achievement of the pupils in the experimental group was compared to that of pupils in the control groups.

Mean scores for each group on each of the following measures were computed using a hand calculator.

Pre-tests in listening comprehension (composite score)
Post-tests in listening comprehension (composite score)
Reading tests (composite scores)
Kuhlman-Anderson Test of Mental Maturity (IQ)

The data thus obtained are presented in Table 1. The data for each class were used in the analysis of covariance and were basic to the findings and conclusions of this investigation.

TABLE 1

MEANS OF COMPOSITE LISTENING AND READING SCORES AND IQ'S

		Composite Listening Scores		Composite Reading Scores	IQ - Kuhlman - Anderson Test of Mental Maturity
		Sept.	June		
	N	M	M	M	M
Experimental	48	93.49	126.61	2.29	112.45
Control 1	42	87.40	106.15	2.00	112.71
Control 2	42	88.52	106.67	1.91	110.40

The data were punched on IBM cards and the analysis of covariance was performed using the Program Mesa 95 programmed by J. D. Finn for the 7094 computer. To test Hypothesis 1, the listening pre-test score was used as the covariate with listening and reading as the dependent variables. To test Hypothesis 2, IQ was used as the covariate with listening and reading as the dependent variables. An F ratio of the difference between the groups which attained the five per cent level of significance was stipulated for a rejection of the null hypotheses.

The findings were interpreted within the limitations of the study and conclusions drawn from them.

VIII FINDINGS RELATED TO THE HYPOTHESES

Hypothesis 1: The listening comprehension of first grade children will not be significantly improved by direct instruction in listening.

The results of the analyses of covariance using the pre-test scores in listening as the covariates and post-test scores in listening as the dependent variables are reported in Table 2.

TABLE 2

SUMMARY OF THE ANALYSES OF COVARIANCE TO DETERMINE DIFFERENCES IN LISTENING ACHIEVEMENT

GROUPS	df	MS	F	P
Control 1 (N=42) -- Control 2(N=42)	1	0.028	0.041	.86
Experimental (N=48) -- Control 1 + Control 2 (N=84)	1	219.418	322.89	.003

The first operation compared the listening achievement of the two control groups. The obtained value of F of .041 had a probability of .86 and it was concluded that there were no significant differences between the control groups. Any differences found between the experimental and control groups were ascribed, therefore, to factors other than the Hawthorne effect. Therefore the data for the two control groups could be combined.

A second analysis of covariance compared the listening achievement of the experimental group with that of the combined control groups. The resulting F of 322.89 had a probability of .003, and it could be stated that a difference in listening achievement significant at the .003 level of confidence was found between the experimental and combined control groups. The significant superiority of the experimental group was attributed to the effects of the instructional program in listening, and the first null hypothesis was rejected.

Hypothesis 2: The reading comprehension of first grade children will not be affected by direct instruction in listening comprehension skills.

To test Hypothesis 2, the data were again analyzed using analysis of covariance, this time using IQ as the covariate and the composite reading scores as the dependent variables. The results of the analyses of covariance are shown in Table 3. A difference significant at the .06 level of confidence between the reading achievement of the experimental and combined control groups (F=14.47; P= .06). A comparison of the two control groups again revealed no significant difference (P= .96) and so the difference found between the experimental and control groups was attributed to factors other than the Hawthorne effect.

TABLE 3

SUMMARY OF THE ANALYSIS OF COVARIANCE TO

DETERMINE DIFFERENCES IN READING ACHIEVEMENT

GROUPS	df	MS	F	P
Control 1 (N=42) -- Control 2 (N=42)	1	0.0000	0.004	.96
Experimental (N=48) -- Control 1 + Control 2 (N=84)	1	0.113	14.47	.06

A .05 level of confidence for rejecting the null hypothesis had been set a priori. Therefore it could not be rejected on the basis of the data collected. However, it was noted that when the reading achievement of the experimental group was compared to that of the control groups the obtained F ratio was significant at the .06 level, while when the reading achievement of the two control groups was compared, the obtained F ratio would be expected to occur by chance 96 times in 100. The evidence therefore, pointed to a strong positive relationship between listening ~~achievement~~ instruction and reading achievement at the end of first grade.

IX LIMITATIONS OF THE STUDY

Three specific limitations of this study were recognized and considered when the findings were interpreted.

1. The subjects of the study were a select group and any generalizations based on the findings will be applicable only to similar populations. The mean IQ of the subjects was 111.57, and only 8 of the 132 subjects had IQ's below 100. Nor were the subjects representative of the extremes of the *Occupational Class Scale*.

2. The teachers participating in the study were all experienced, able teachers. The effectiveness of the listening program, given mediocre instruction, was not assessed. On the other hand, the teachers of the experimental program had not previously considered listening a skill to be taught, and were dealing with unfamiliar ideas and materials.

3. No standardized tests of listening were available for use in the study. The tests used were generally adequate for the purpose (that is, to measure growth in listening comprehension) but had not undergone the careful refinement expected in a standardized test. One of the tests did not have sufficient range to measure the achievement of the experimental group at the end of the study.

X CONCLUSIONS

The findings of the study interpreted in the light of the described limitations, appeared to substantiate the following conclusions:

1. The listening comprehension of first grade pupils of the type used in this study is significantly improved by a program of direct instruction in listening.

2. The pattern of instruction used in basal reading programs, when adapted for use with aurally presented material, improves listening comprehension at the first grade level.

3. A program of instruction in listening, under the conditions of this study, has a strong positive effect on reading achievement, although it does not produce *highly* significant improvement in reading comprehension.

XI IMPLICATIONS OF THE FINDINGS

To the extent that the conclusions of this study may be generalized to a wider school population, they provide justification for the following implications for curriculum planning:

1. The findings of this study, in combination with the review of the literature, would suggest a need for a systematic developmental program in listening in first grade. In view of the low level of listening efficiency reported in the literature, and the importance of listening in modern communication, it would seem that schools should give priority to improving the listening ability of their students. It would seem logical to institute a developmental program in listening at the first grade level.

2. It would appear that a developmental program in listening should extend through the primary grades.

The instruction given to the experimental group during their first grade year produced significant improvement in listening ability. It might be expected, on the basis of the success of the experimental program and the tendency reported in the review of the literature for short periods of instruction to produce improvement in listening in the intermediate grades, that a continuous developmental program would be of even greater value.

3. It would appear worthwhile to develop a systematic program of instruction in listening for pupils having difficulty with language learning.

The findings of this study were based on data obtained from a rather select school population whose environment might be considered to be generally conducive to language learning. Yet systematic instruction resulted in a level of listening ability significantly superior to that which developed spontaneously or with incidental instruction.

If systematic instruction in listening were to be of value to a school population where the opportunities for developing language skill were good, it seems likely that it would be beneficial for other groups whose language environment was less advantageous. Instruction which successfully improved listening comprehension could be a vital feature in the language learning of such groups.

4. Instructional programs in listening for the primary grades might well be patterned on the experimental program used in this study.

In the review of the literature it was pointed out that educators interested in establishing listening programs were hindered by the fact that neither research reports nor authoritative writing in the field of language arts described how listening should be taught or the content of a listening program.

The methods and materials of instruction used in this study produced highly significant improvement in listening comprehension, and so might be considered as a guide to curriculum planners in developing their programs.

XII SUGGESTIONS FOR FURTHER RESEARCH

Prior to further investigations, more adequate measuring tools are needed. Specifically, good standardized tests to measure attainment in listening comprehension in the primary grades should be developed.

1. This study should be replicated with other populations. The present investigation assessed the effects of listening instruction in a single school system with a select school population. Replication of the study should be carried out to determine the effects of the experimental program on other populations.

2. A longitudinal study should be undertaken to assess the permanence of the improvement in listening effected by instruction, with and without continued instruction beyond first grade.

3. There is a need for longitudinal studies to define the optimum periods in a child's school career for instruction in listening.

4. A further study might attempt to delineate those listening skills which are most improved by instruction.

5. Other instructional programs should be developed and their effectiveness compared with that of the one used in this study.

6. Further study of the effects of listening instruction on reading achievement should be undertaken. One such study might investigate the effect of listening instruction on reading achievement when the programs in reading and listening are closely coordinated to improve transfer of learning.

7. Research is needed to determine specific areas where transfer of learning can be expected, as well as those areas where separate instruction is needed in reading and listening.

8. A study should attempt to determine whether improved listening comprehension scores following a program of instruction are primarily the result of a new awareness of the importance of listening and hence greater attention to the oral word, or the result of improved facility in applying comprehension skills to oral language. Such a study might compare the results of a program that directed pupils' attention to the vital role of listening in their activities and taught techniques for focussing attention on oral communications with the results of one which concentrated on teaching comprehension skills.